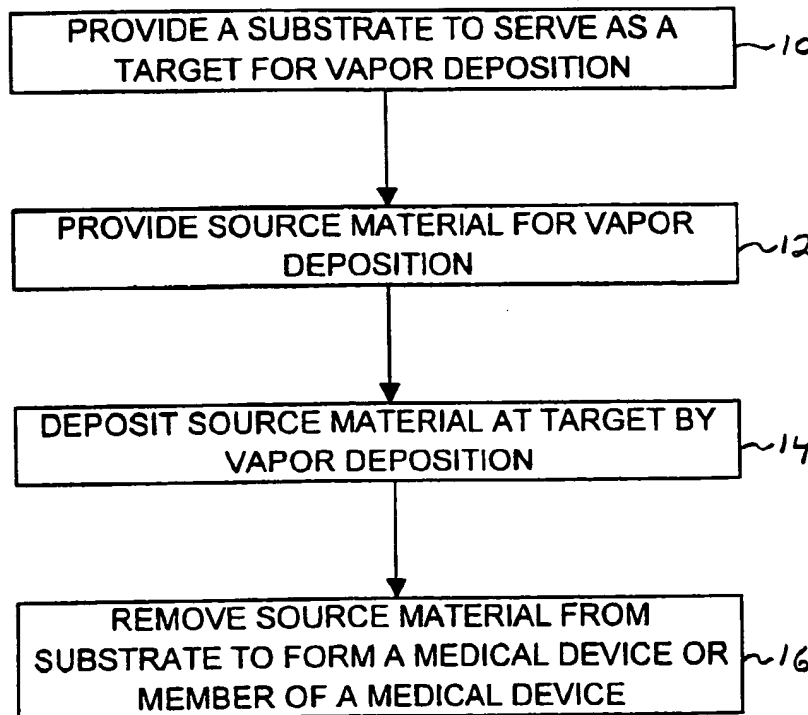




US 20030018381A1

(19) **United States**(12) **Patent Application Publication**  
**Whitcher et al.**(10) **Pub. No.: US 2003/0018381 A1**(43) **Pub. Date: Jan. 23, 2003**(54) **MANUFACTURING MEDICAL DEVICES BY  
VAPOR DEPOSITION****Related U.S. Application Data**(75) **Inventors: Forrest D. Whitcher, Allston, MA  
(US); Makoto Takeuchi, Newton, MA  
(US)**(63) Continuation of application No. 09/490,613, filed on  
Jan. 25, 2000, now abandoned.**Publication Classification****Correspondence Address:**  
**Glenn M. Seager**  
**CROMPTON, SEAGER & TUFTE, LLC**  
**Suite 895**  
**331 Second Avenue South**  
**Minneapolis, MN 55401 (US)**(51) **Int. Cl.<sup>7</sup> ..... A61F 2/06; A61L 2/00; B05D 3/00**  
(52) **U.S. Cl. .... 623/1.15; 427/2.24**(57) **ABSTRACT**

A method of forming a medical device, the method including the steps of providing a substrate, depositing a metallic layer on the substrate by a vapor deposition process, and removing the metallic layer from the substrate. The metallic layer thus removed is the medical device or serves as a basis for forming the medical device. In another aspect, the present invention includes a medical device formed by the process of the present invention.

(73) **Assignee: SCIMED LIFE SYSTEMS, INC.**(21) **Appl. No.: 10/242,382**(22) **Filed: Sep. 12, 2002**

ion beam sputter etc  
vacuum  
rate > .05 mm/min  
rotate substrate

control heterogeneity  
material  
55.9 M<sup>2</sup>